

# Teaching Astronomy with ESASky

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*On behalf of the ESASky and CESAR Science Cases teams: Belén López Martí, Bruno Merín, Fabrizio Giordano, Elena Racero, Ricardo Vallés, Henrik Norman, Pilar de Teodoro, Jesús Salgado, Guido de Marchi; Beatriz González, Rebecca Barnes, Ángel del Pino*

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Cooperation through Education in Science and Astronomy Research

➤ Offers the following activities to schools and teachers:



**Space Science Experience for schools**

**Differential Rotation vo.4**  
Step 2/3  
Measure the movement of a sunspot

Task:  
To measure the path of a sunspot in kilometers, we first need to know the size of the Sun. Just like a cross multiplication.

Click on the first box and then measure the diameter of the Sun. Then, click on the second box and measure the path of the sunspot between the two first images. Repeat this for all the images you choose.

Sun diameter 426 pixels   1,392,684km   35.5'	<input checked="" type="checkbox"/>
Distance 45 pixels   136,554km   3.1'	<input checked="" type="checkbox"/>
Distance	<input checked="" type="checkbox"/>
Distance	<input checked="" type="checkbox"/>

**Online Science Cases**

**CESAR Telescopes**

**Teacher training**

<http://cesar.esa.int>



## ➤ Learning Astronomy through exploration and discovery



<https://www.cosmos.esa.int/web/esdc/esasky-for-education>

## Demo

<http://sky.esa.int>

# ESASky Science Cases

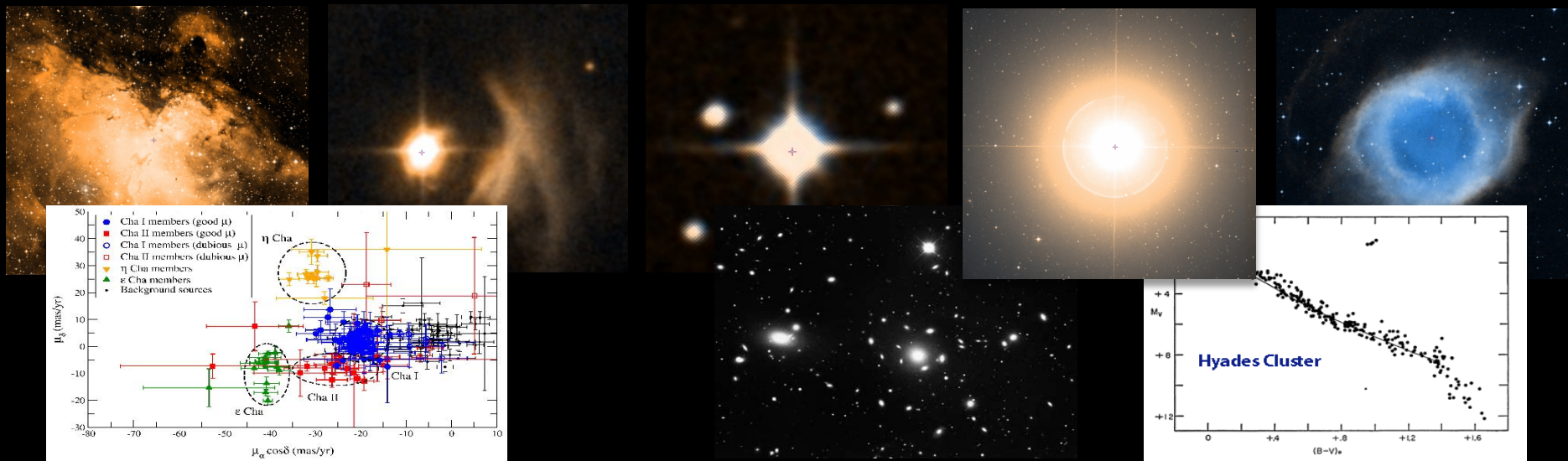


The screenshot shows a Safari browser window on a Mac. The address bar contains 'sky.esa.int - ESASky 2.1'. A search dropdown menu is open, showing 'Top Hit' as 'ESASky 2.1 - sky.esa.int', 'Google Suggestions' for 'sky', and a list of 'Bookmarks and History' for 'ESASky 2.1'. The left sidebar contains search results for 'www.scienceinschool.org', 'Astrophysics at the CSO', 'Project Workspace: CESAR', 'Base64 Image Encoder', 'Best Online Image to Base64 Converter for H...', 'Tryit Editor v3.5', 'Table themes', and 'Encode and decode a piece of text to its HTML...'. The main content area shows a 'Frequently Visited' section with icons for 'Belen Lopez Marti - Outlook...', 'ESASky 2.1', 'Yahoo!', 'CESAR', 'Free Online JSON Escape...', 'Compress and Resize JPEG I...', 'wiki dot', 'Cosmos Home - Cosmos', 'Newsletter\_Plan - Google She...', 'LinkedIn', 'ESA', and 'Replicon Web TimeSheet 8...'. The top of the browser window shows the menu bar (Safari, File, Edit, View, History, Bookmarks, Window, Help) and system status (67% battery, Fri 09:20, Belen).



## ➤ More to come...

- Lives of stars (stellar evolution)
- Birds of a feather (identifying members of a stellar cluster)
- Looking at the edge of time (galaxy clusters)
- ...



# The teams



## The ESASky team

**Engineers:** Fabrizio Giordano, Henrik Norman, Elena Racero, Ricardo Vallés, Jesús Salgado

**Scientists:** Belén López Martí, Deborah Baines, Marcos López Caniego, Bruno Merín, Guido de Marchi

## The CESAR Science Cases team

Beatriz González, Rebecca Barnes, Belén López Martí, Ángel del Pino

With the collaboration of other colleagues at ESAC



# We need your feedback!



J2000 05 41 9.743 -02 21 19.05 FoV: 24.26'

Search...

Sky: DSS2 color

- 282
- 17 097
- 66
- 971

# <http://sky.esa.int>

Feedback: <http://esasky.userecho.com>

<http://cesar.esa.int>

#ESASky

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